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HIGHLIGHTS OF THE STRUGGLE AGAINST THE MOST IMPORTANT  
INFECTIOUS DISEASES IN THE KIRGIZ SSR IN THE 50 YEARS OF SOVIET RULE

COUNTRY: USSR

## TECHNICAL TRANSLATION

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INFECTIOUS DISEASES IN THE KIRGIZ SSR IN THE 50 YEARS OF SOVIET  
RULE

by

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The great October socialist revolution opened wide possibilities for the development of the productive powers of our country. The Kirgiz SSR has made a worthy contribution to the single fraternal family of Soviet nations in the combat during the complete and final victory of socialism in the USSR. Soviet Kirgizstan has changed from a formerly backward mountain region to a flourishing republic with developed industry, flourishing agriculture, advanced science and culture, and high living conditions of the population.

Before the great October revolution the natural riches of Kirgiz were not utilized, and its economy was at an extremely low level. Kirgiz was in last place in literacy in Asia. Only 6 persons per 1,000 could read, and among women literacy was even lower.

In the territory of pre-revolutionary Kirgiz there were 107 schools, and out of these 1 was secondary and 3 were partially secondary. The public health system included 9 dispensaries, 6 hospitals (for 100 beds), and 21 nursing stations. In all of contemporary Kirgiz there were 15 doctors. In 1913, there was 1 hospital bed per 10,000 persons, and 57,600 inhabitants of Kirgiz per doctor, and 28,800 inhabitants per immediate medical worker. Hospitals and nursing stations were concentrated in the towns and large population centers. The majority of inhabitants of mountain villages were "treated" by mullahs and ignorant sorcerers, and diseases took thousands of lives.

The poor social-living conditions and extremely low level of medical care in pre-revolutionary Kirgiz created the conditions for wide distribution of many infectious diseases--small pox, plague, cholera, malaria, etc. For many years these infections took a great number of human lives. Morbidity from intestinal infections, recurrent and mite typhus, Leishmaniasis, anthrax, trachoma, and skin diseases.

Thus, under the conditions of Tsarism, Kirgiz was one of the most backward regions of the Russian Empire. The great October socialist revolution brought the people of Kirgiz not only political freedom, but also the possibility to build a life on socialist beginnings.

During the years of Soviet rule, the volume of industrial production in that republic exceeded the pre-revolutionary level by 116 times, the government budget was increased 20 times in comparison with 1925, the development of electric power increased from 800,000 kw in 1928 to 2.7 billion kw in 1966. There was also a sharp increase in production of coal, 18 times, petroleum, cotton, beet sugar, meat products, etc.

The number of population of Kirgiz (towards the beginning of 1967) had increased 2.8 times in comparison with the number in 1926; the city population 8 times, and the rural 1.8 times.

During the years of Soviet rule enormous success has been achieved in the fields of education and public health, with sharp improvement in material living standards. In pre-revolutionary Kirgiz 7,040 students (out of them only 476 were Kirgizites) were instructed in 107 schools; now the entire population is educated. For every 10,000 inhabitants in Kirgiz there are 133 students of higher education, whereas in France there are 50, in England--45, and in Turkey--22. Science is developing vigorously in the republic. The Academy of Sciences of the Kirgiz SSR was created in 1954.

Enormous changes have also occurred in the field of medical services to the population of Kirgiz. At the present time more than 21,000 medical workers are working in public health institutions in the republic. Of them, 16,000 intermediate medical workers and more than 5,000 doctors (instead of 15 in the pre-revolutionary period). While in the pre-revolutionary period there were about 60,000 persons per doctor, now there are only 500. Towards the beginning of 1967 there were 279 hospitals and dispensaries functioning, containing more than 23,000 beds.

In the republic there is the medical institute with four faculties (treatment, pediatrics, sanitary-hygienic, and stomatological) and 9 medical schools. Moreover, the Academy of Sciences in the Kirgiz republic operates 5 sectional institutes: the Kirgiz Institute of Epidemiology, Microbiology, and Hygiene, the Institute for Protection of Mothers and Children, the Institute for Health Resort Treatment and Physiotherapy, the Institute of Oncology and the Institute of Tuberculosis.

The Soviet system of public health and the governmental measures directed at improvement of the live and living conditions of the people have permitted the achievement of significant reduction in illness in general and infectious diseases in particular. Deaths have been reduced by several orders of magnitude, especially among the child population. The success of Soviet medicine in the prophylaxis of highly contagious diseases has been clearly demonstrated in the Kirgiz SSR.

In the pre-revolutionary period and in the period of establishment of Soviet rule in Kirgiz, epidemic outbreaks of plague, cholera, and small-pox were registered. From 1929 to 1936 these diseases were not encountered, which shows the great victory of Soviet public health.

The task of eradication of such massive diseases as malaria in the Kirgiz territory was a more complex problem. In the pre-revolutionary period there was the rare inhabitant of Kirgiz who had not suffered from this infection. The morbidity from malaria was comparatively high in the World War II period. In the post-war years malaria was registered among the population noticeably less frequently, but sporadic cases were observed until 1958. Since 1959 malaria has not been encountered in the Kirgiz territory. The absence of morbidity from malaria for a period of 8 years indicates the curtailment of the sources of infection in our region.

Natural sources of tick-borne recurrent typhus and visceral Leishmaniasis were constantly active in Kirgiz. Until 1955 from 100 to 270 cases per year of tick-borne recurrent typhus were registered in the republic. After 1950 the morbidity was computed in single or tens of cases, and since 1965 this infection has no longer been observed. The morbidity from visceral Leishmaniasis in the post-war years was estimated at 5-20 cases per year. Beginning with 1964 the natural sources of visceral Leishmaniasis were eradicated, and over a period of the last four years this infection has not been recorded.

In certain zones of the republic comparatively high incidence of ancylostomiasis has been noted: in individual post-war years the number of cases of ancylostomiasis in the republic reached 400-700. Since 1957 the morbidity has decreased to 2-7 cases per year, and since 1964 ancylostomiasis has ceased to be registered. Great success has also been achieved in the republic in the reduction of other helminthic diseases.

Out of a group of zoonotic infections, brucellosis merits special attention. Before 1945 this disease was not always diagnosed in the republic. But through the Organization of Laboratory Service and its general adoption, wide distribution of this infection was determined in Kirgiz,

especially among the population connected with animal husbandry. The highest morbidity from brucellosis, as shown by statistics, was registered in 1950. Since this time rational prophylaxis of the disease has begun to be carried out in the Kirgiz republic. The results of anti-epidemic measures in reducing the morbidity from brucellosis were extremely demonstrative. It is sufficient to say that towards the end of 1966 the number of new cases of brucellosis had been reduced almost 50 times in comparison with the 1950 indexes.

Significant successes have also been achieved in combatting other zoonotic infections--anthrax and rabies.

The old merchant caravan routes in Kirgiz, through which the bonds of eastern countries were maintained, were long ago shown to be sources of anthrax. Despite extensive work in the reduction of morbidity from anthrax carried out by the anti-epidemic service of Kirgiz (1966 morbidity from anthrax among people was registered 6 times less frequently than in 1950), individual sporadic cases of this infection are still encountered. However, there is every basis for considering that in the near future this infection will also be practically eradicated. Complete curtailment of rabies under the conditions of our mountain regions has been associated with well-known difficulties. Nevertheless, in comparison with the pre-war and war periods the morbidity from rabies among people has been reduced more than 10 times. Not more than 1 to 3 cases are registered per year.

Significant successes have also been achieved in combatting childhood infections.

Diphtheria and measles were previously the principle cause of child mortality in the republic. Thanks to widespread immunization of the child population against diphtheria, and also the implementation of anti-epidemic measures in Kirgiz, the morbidity from diphtheria at the beginning of 1967 was 56 times lower than the morbidity in 1956-1958. Morbidity from measles in territories where anti-measles vaccine Leningrad-4 and Leningrad-16 were approved, on the average had decreased 7 to 9 times, and in the republic as a whole--2.2 times. One may assume that as a result of general massive immunization of children with live anti-measles vaccine L-16, measles infection will be reduced to the level of sporadic incidents in the near future (M. G. Aminova, K. A. Atakhanov, et al).

Despite comparatively low percent of paralytic forms of poliomyelitis, this infectious disease under the conditions in Kirgiz has caused great damage to the health of the children. Thanks to the use of anti-poliomyelitis live vaccine of Soviet manufacture, during the past 10 to 11 years

morbidity from paralytic forms of poliomyelitis in Kirgiz have been reduced more than 20 times. In 1966 not one case of this disease was registered in the republic.

The absence of specific prophylactic measures against scarlet fever have prevented significant reduction of the level of morbidity from it. However, as a result of extensive use of anti-biotics, improvement in living conditions, a constant increase in the quality of medical services to the population, cases of scarlet fever are, as a rule, light, without complications and give the region a low percent of lethality (0.01-0.06).

This is also the situation with epidemic hepatitis (Botkin's disease).

Prophylaxis for dysentery and typhoid fever under conditions of warm climate in central Asia, irrigated farming, and ditch water supply make the problem rather complicated. Nevertheless, morbidity from them has decreased in comparison with the 1955 levels by 2 and 3 times respectively.

From 1926 to 1966, 9 million  $\text{m}^2$  of inhabited space has been constructed. One hundred seventy-five thousand houses erected by collective farms, are not included in this number. As a result, the residential fund of the republic has increased more than 10 times. In many houses there are water supply, sewage, and central heating.

The systematic reduction of many infectious diseases in Kirgiz, as in other republics of the Soviet Union, have resulted from a series of objective factors. Among these are: 1) significant improvement in the material-living conditions; 2) high development and achievement of medical assistance to the population, free treatment and attention to patients; 3) improvement of sanitary-hygienic conditions of populated areas; 4) scientific rebased planning and timely implementation of prophylactic and anti-epidemic measures; 5) a cultural level of the population which increases from year to year.

Scientists in Kirgiz are intensively studying questions of regional epidemiology and clinical treatment of a series of infectious diseases. Colleagues in the department of infectious diseases are studying the influence of natural-climatic, sanitary-hygienic factors and factors of living conditions on the course of epidemic and infectious processes in certain intestinal infections. Many other questions of regional infectious pathology are also being treated.

These are the general results in the reduction of infectious diseases in the Kirgiz republic during the fifty years of Soviet rule. Not one capitalist government with similar natural-climatic conditions has achieved such progress in such a comparatively short historical period. Only the Soviet regime, only the Soviet system of public health permits one to pose and successfully solve the complex questions of economics, development of culture, and public health.

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